

4. Communications

Airmen use several means to communicate, whether they are flying, taxiing, or stranded after an accident. Aerial communication has grown from simple techniques of dropping messages from airplanes to the use of highly sophisticated transceivers. In order to fulfill communication responsibilities involving the aircraft radios, mission observers must study basic communication techniques that are applicable to general aviation. This chapter will discuss radio communication techniques and examine other non-verbal communication methods that may be used when circumstances don't permit two-way radio use.

4.1 *Electronic Communications*

The aircraft radio (comm) is the primary means of communication in aviation. To effectively use the radio, mission observers must be knowledgeable of *how* to communicate and *when* communications are required. The techniques covered in this section were developed to improve clarity, to help keep communications transmissions brief, and as a means of giving words standardized meanings. Necessary communication should never be delayed while mentally searching for the appropriate terminology or phrase. If in doubt, always use plain language. Keep your radio transmissions clear, simple, and accurate. Practice using the radio so that you will be ready to go into action when the situation arises.

The discussion below covers communications with the air traffic control system, using the aircraft's comm radios. However, unlike most civilian aircraft, CAP aircraft also have a FM radio, which is used for mission-related communications, enabling us to communicate with mission base and ground units on different (non-ATC) frequencies. Most aircraft have a list of the assigned frequencies in the glove compartment.

Normally, the FM radio is operated by the observer. Its location, usually on the far right side of the front panel, makes it difficult for the pilot to operate. Operations vary for many aircraft, so you need to familiarize yourself with the operation of your aircraft's FM radio. You must possess a CAP Radio Operator Authorization card (CAPF 76) to operate this radio.

4.1.1 Using the aircraft radios

To establish radio communications, first tune the communications radio to the frequency used by the ground station. Almost all general-aviation aircraft transmitters and receivers operate in the VHF frequency range of 118.0 MHz to 136.975 MHz. Civil Air Patrol aircraft normally have 720-channel radios, and the desired frequency is selected by rotating the frequency select knobs until that frequency appears in the light-emitting diode display, liquid crystal display, or other digital frequency readout or window.

The 720-channel radios can be tuned in increments as small as 25 kilocycles, such as 119.725 or 119.775, by pulling the small knob (labeled "25 KC", lower right) outward. The last digit of the frequency will not be seen in the display (e.g., 119.775 is displayed as 119.77). Sometimes, for brevity, air traffic controllers assign such frequencies as "one-one nine point

seven seven", meaning 119.775, not 119.770. The operator cannot physically tune the radio to 119.770, and this may be confusing.

Before transmitting, first listen to the selected frequency. An untimely transmission can "step on" another transmission from either another airplane or ground facility, so that *all* the transmissions are garbled. Many pilots have been violated for not complying with instructions that, it was later determined, had been blocked or "stepped-on" by another transmission. Next, mentally prepare your message so that the transmission flows naturally without unnecessary pauses and breaks. You may even find it helpful to jot down what you want to say before beginning the transmission. When you first begin using the radio, you may find abbreviated notes to be a convenient means of organizing your thoughts and using the proper terminology. As your experience level grows, you will no longer need to prepare using written notes.

Some radios have a design limitation that causes a slight delay from the instant the microphone is "keyed" until the radio actually starts transmitting. If you begin to speak before the radio has actually started to transmit, the first few syllables of the transmission will be lost. Until you become familiar with the characteristics of the individual radio, you may find it desirable to make a slight pause between keying the microphone and beginning to speak. When you are prepared to transmit, hold the microphone close to your mouth, and speak in a normal voice.

Normally, the initial transmission to a facility starts with the name of the facility you're calling, followed by your identification. You will usually identify yourself using your CAP flight designation (e.g., CAP Flight 4239). Once you've identified the facility and yourself, state your message.

4.1.2 Pronunciation

Radios do not always provide crystal clear sound. For example, 5 and 9, or B, D, T, and V may sound the same on a static-filled radio speaker. To minimize confusion, and to increase clarity, pronunciations of certain numbers and alphabetical characters used in radio transmissions have been accentuated.

Numbers are usually transmitted digit-by-digit, but there are some exceptions to that rule. For example, 10,000 is often transmitted as TEN THOUSAND, instead of ONE ZERO THOUSAND and radio frequencies are usually expressed like ONE TWENTY-EIGHT POINT ONE, instead of ONE TWO EIGHT POINT ONE.

Figure 4-1 provides a sample of how numbers are pronounced when using the radio.

Number	Spoken As:	Number	Spoken As:
0	ZERO	9	NINE ER
1	WUN	10	WUN ZERO
2	TOO	11	WUN WUN
3	THU REE	33	THU REE THU REE
4	FO WER	136	WUN THU REE SIX
5	FI YIV	500	FI YIV HUN DRED
6	SIX	1478	WUN FO WER SEVEN ATE
7	SEVEN	2100	TOO WUN ZERO ZERO
8	ATE	128.1	WUN TOO EIGHT POINT ONE

Figure 4-1

Like numbers, the letters of the alphabet carry distinctive traits of pronunciation. When it becomes necessary to spell difficult words, groups of words, or to identify any letter of the alphabet, the standard phonetic alphabet is used. The word to be spelled will be preceded by

the words “I spell.” If the operator can pronounce the word to be spelled, do so before and after spelling the word.

You should express your callsign phonetically when calling, entering, reentering, joining, or rejoining a net, and when difficult operating conditions may result in confusion or mistaken identity. At all other times, phonetic expression of call signs is not required. Figure 4-2 shows the phonetic alphabet pronunciation for each letter.

Letter	Word	Pronunciation	Letter	Word	Pronunciation
A	Alpha	AL FAH	N	November	NOE VEM BER
B	Bravo	BRAH VOH	O	Oscar	OSS CAH
C	Charlie	CHAR LEE	P	Papa	PAH PAH
D	Delta	DELL TAH	Q	Quebec	KEH BEK
E	Echo	ECK OH	R	Romeo	ROW ME OH
F	Foxtrot	FOKS TROT	S	Sierra	SEE AIR AH
G	Golf	GOLF	T	Tango	TANG GO
H	Hotel	HOH TELL	U	Uniform	YOU NEE FORM
I	India	IN DEE AH	V	Victor	VIK TAH
J	Juliet	JEW LEE ETT	W	Whisky	WISS KEY
K	Kilo	KEY LO	X	X-Ray	EKS RAY
L	Lima	LEE MAH	Y	Yankee	YANG KEE
M	Mike	MIKE	Z	Zulu	ZOO LOO

Figure 4-2

4.1.3 Prowords

Prowords are pronounceable words and phrases that have been assigned a meaning for the purpose of expediting communications on radiotelephone circuits. Despite their economical uses, a proword, or combination of prowords should not be used to substitute in the text of the message if they will distort, change, or cause the actual meaning of the message to become unintelligible. Figure 4-3 contains a sample of prowords commonly used in radio communication.

TERM	DEFINITION or MEANING
AFFIRMATIVE	Yes.
ALL AFTER	The portion of the message to which I have reference is all that which follows.
ALL BEFORE	The portion of the message to which I have reference is all that which precedes.
BREAK	I hereby indicate the separation of the text from other portions of the message.
COPY	I understand.
CORRECT	You are correct, or what you have transmitted is correct
CORRECTION	An error has been made in this transmission. Transmission will continue with the last word correctly transmitted
DISREGARD	The last transmission was in error. Disregard it.
DISREGARD THIS TRANSMISSION	This transmission is in error. Disregard it. This proword should not be used to cancel any message that has been completely transmitted and for which receipt or acknowledgment has been received.
EXEMPT	The addresses immediately following are exempted from the

TERM	DEFINITION or MEANING
	collective call.
FIGURE(S)	Numerals or number follow.
FROM	The originator of this message is indicated by the address designator immediately following.
I READ BACK	The following is my response to your instructions to read back.
I SAY AGAIN	I am repeating transmission or portion indicated.
I SPELL	I shall spell the next word phonetically.
I VERIFY	That which follows has been verified at your request and is repeated. To be used only as a reply to VERIFY.
INFO	The addressees immediately following are addresses for information.
INITIALS	Personal initials shall be spoken phonetically prefixed by the word "INITIALS."
MESSAGE FOLLOWS	A message which requires recording is about to follow. Transmitted immediately after the call. (This proword is not used on nets primarily employed for conveying messages. It is intended for use when messages are passed on tactical or reporting nets.)
MORE TO FOLLOW	Transmitting station has additional traffic for the receiving station.
NEGATIVE	No or "permission not granted" or "that is not correct"
OUT	This is the end of my transmission to you and no answer is required or expected.
OVER	This is the end of my transmission to you and a response is necessary. Go ahead; transmit.
PRIORITY	Precedence PRIORITY.
READ BACK	Repeat my message back to me. A request to repeat instructions back to the sender, for the purpose of confirmation. Also, the receiver's reply, repeating the instructions, as in: "Read back is as follows..."
RED CAP	Precedence RED CAP.
RELAY (TO)	Re-transmit this message to...
ROGER	I have received all of your last transmission. This should not be used to answer a question requiring a yes or no answer.
ROUTINE	Precedence ROUTINE.
SAY AGAIN	Repeat all of your last transmission. Followed by identification data means "Repeat _____ (portion indicated)."
SPEAK SLOWER	Your transmission is at too fast a speed. Reduce speed of transmission.
SPELL, or I SPELL	Please spell, or "I shall spell the next word phonetically."
STANDBY	I must pause for a few seconds.
THIS IS	This transmission is from the station whose designator immediately follows.
TIME	That which immediately follows is the time or date-time group of the message.
TO	The addressees immediately following are addressed for action.
VERIFY	Verify entire message (or portion indicated with) the originator and send correct version. To be used only at the discretion of or by the addressee to which the questioned message was directed.

TERM	DEFINITION or MEANING
WAIT	I must pause for a few seconds.
WAIT OUT	I must pause longer than a few seconds.
WILCO	I have received your signal, understand it, and will comply. To be used only by the addressee. Since the meaning of ROGER is included in that of WILCO, the two prowords are never used together.
WORD AFTER	The word of the message to which I have reference is that which follows _____.
WORD BEFORE	The word of the message to which I have reference is that which precedes _____.
WORDS TWICE	Communication is difficult. Transmit each phrase or each code group twice. This proword may be used as an order, request, or as information.

Figure 4-3

As an example of using phonetic letters and numbers, consider the following hypothetical example. [NOTE: ATC treats the CAP Flight callsigns like carrier airlines, so they do not spell out each number. For example, CAP Flight 4239 would be pronounced "CAP Flight FORTY-TWO THIRTY-NINE."]

You want to fly an aircraft, CAP Flight 0123, through Restricted Area R-2403B, just north of Little Rock, Arkansas. You must verify the status of that area before proceeding and can do so with a transmission such as this:

"Memphis Center, CAP Flight ONE TWENTY-THREE requests flight through Restricted Area TWO FOUR ZERO THREE BRAVO to Fort Smith at NINER THOUSAND, FIVE HUNDRED if that airspace is not presently active."

If the area is not active, you might receive a reply like this from Memphis Center:

"CAP Flight ONE TWENTY-THREE, Memphis Center. Restricted Area TWO FOUR ZERO THREE BRAVO is not currently active. Proceed own navigation to Fort Smith."

Now that the controller has answered the request, you must make one final transmission so that the controller knows you have received and understood his instruction:

"Roger Memphis. CAP Flight ONE TWENTY-THREE is proceeding direct to Fort Smith at this time at NINER THOUSAND, FIVE HUNDRED."

In this communication exchange, both observer and controller were consistent in their messages. On the initial call-up, the observer first identified the facility being called, then identified her aircraft fully before transmitting the request.

The controller did the same, enabling both parties to know with certainty to whom each was speaking. Only when that positive identification has been established may the parties abbreviate the call sign, as in the observer's final transmission as "CAP Flight ONE TWENTY-THREE".

4.1.4 Code words

Because the frequencies CAP normally uses are not secure, code words and phrases are sometimes used to prevent unauthorized parties from obtaining the information and possibly compromising mission integrity. The incident commander may assign code words and phrases for mission members to use when transmitting important mission information, such as the

sighting of the target aircraft, its location, and whether there are survivors. These code words are entered onto your CAPF 104 during briefing.

IC/MCs ensure the codes provided to mission members are exact and complete enough to relay vital information. However, the observer must be sure all the following information is relayed, even when code words are being used:

- The fact that a sighting has been made.
- Location or position of the target in accordance with the grid, map, or chart that is standard to the mission.
- Any survivor information that is available.

Code words and phrases vary according to wing, mission and incident commander. In some cases, code words are not necessary.

4.1.5 Stuck mike

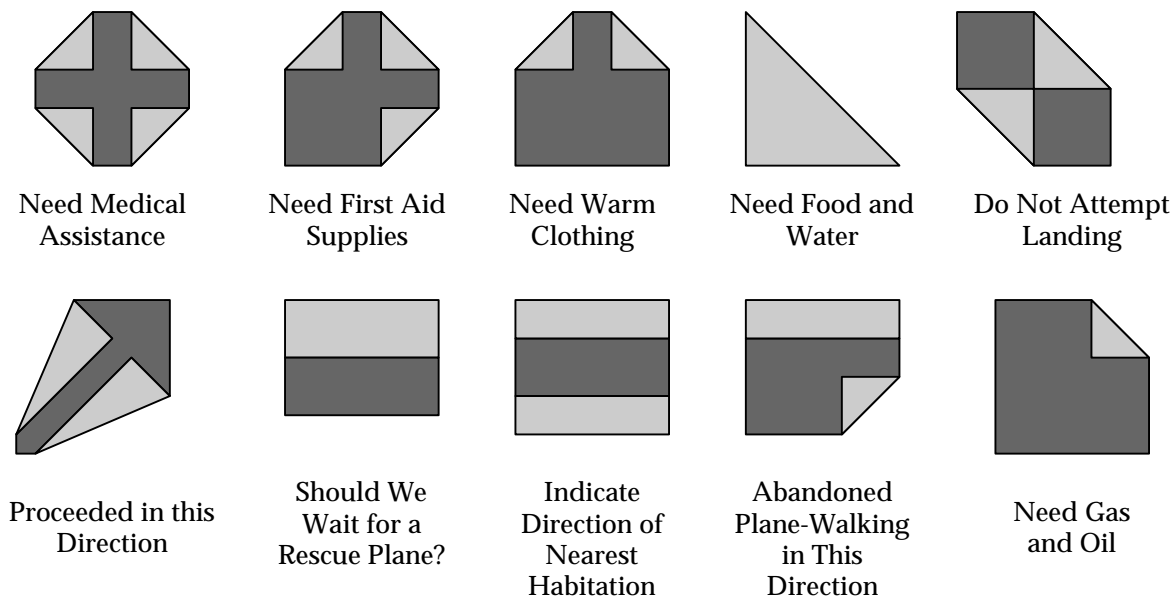
Occasionally, the transmit button on aircraft radio microphones gets stuck in the transmit position, resulting in a condition commonly referred to as a "stuck mike." This allows comments and conversation to be unintentionally broadcast. Worse yet, it also has the effect of blocking all other transmissions on that frequency, effectively making the frequency useless for communication by anyone within range of the offending radio. You may suspect a stuck mike when, for no apparent reason, you don't hear replies to your transmissions, especially when more than one frequency has been involved. Also, with experience you may notice a different sound quality to the background "silence" of the intercom versus the "silence" heard when the microphone is keyed but no one is talking. You may also notice the "T" symbol still illuminated in the radio's display. Often the problem can be corrected by momentarily re-keying the microphone. If receiver operation is restored, a sticking microphone button is quite likely the problem.

4.2 Non-verbal communication

While you are on a mission, nonverbal signals may be the only available method of communication with a crash survivor or with ground teams. Mission observers may have to interpret these nonverbal messages and must be able to do so accurately regardless of the method used.

4.2.1 Light gun signals

If the radio in your aircraft fails, it is still very important for you to follow instructions from the tower on a controlled airport. In this case, you may have to rely on light gun signals from the control tower in order to receive the necessary landing and taxi clearances previously described. These clearance requirements still apply despite an inoperative radio. Figure 4-4 shows each light gun signal followed by its meaning.



Color and Type of Signal	On the Ground	In Flight
Steady Green	Cleared for takeoff	Cleared to land
Flashing Green	Cleared to taxi	Return for landing
Steady Red	Stop	Give way to other aircraft and continue circling
Flashing Red	Taxi clear of runway area	Airport unsafe—Do not land
Flashing White	Return to starting place on airport	Not applicable
Alternating Red and Green	General warning — exercise extreme caution	

Figure 4-4

4.2.2 Body signals

Use of the body is one of the most common means of sending messages. These signals are called "body signals" since they involve the whole body, not just arm movements. They are very easy to use because no special materials are needed. Body signals are shown on the last page of this chapter.

4.2.3 Paulin signals

"Paulin" is a short form of tarpaulin, which means waterproof canvas. If the victims of an accident are fortunate enough to have some paulin material, they may be able to aid the rescuers greatly by sending signals with it. It would be better if it were large and brightly colored. If the paulins are laid in clear areas wherein their colors cause high contrasts, they can be seen from substantial distances.

4.2.4 Emergency distress signals

The standard emergency distress signals shown in Figure 4-6 are another form of ground-to-air communication. These may be made from strips of fabric, pieces of wood, stones, wreckage parts, or any other available material. Each letter is two to three feet wide and six to twelve feet long, with colors that contrast with the background, if possible. Another use for these signals is to inform aerial searchers of ground team findings and intentions, in the absence of radio contact. A complete illustration and description of these signals is contained in CAPR 55-1.

I Require doctor Serious injuries	II Require medical supplies	X Unable to proceed	F Require food and water
K Indicate direction to proceed	↗ Proceeding in this direction	ID Will attempt takeoff	☐ Aircraft seriously damaged
L Require fuel and oil	△ Probably safe to land here	LL All well	JL Not understood
N No	Y Yes	☐ Require map and compass	! Require signal lamp
∨ Require firearm and ammunition	W Require engineer	→→ Information that A/C in this direction	
↗↘ Divided into 2 groups, in directions as indicated	XX Unable to continue; returning	++ Have found only some personnel	
LL Have found all personnel	LLL Operation complete	NN Nothing found. Will continue to search	

Figure 4-6

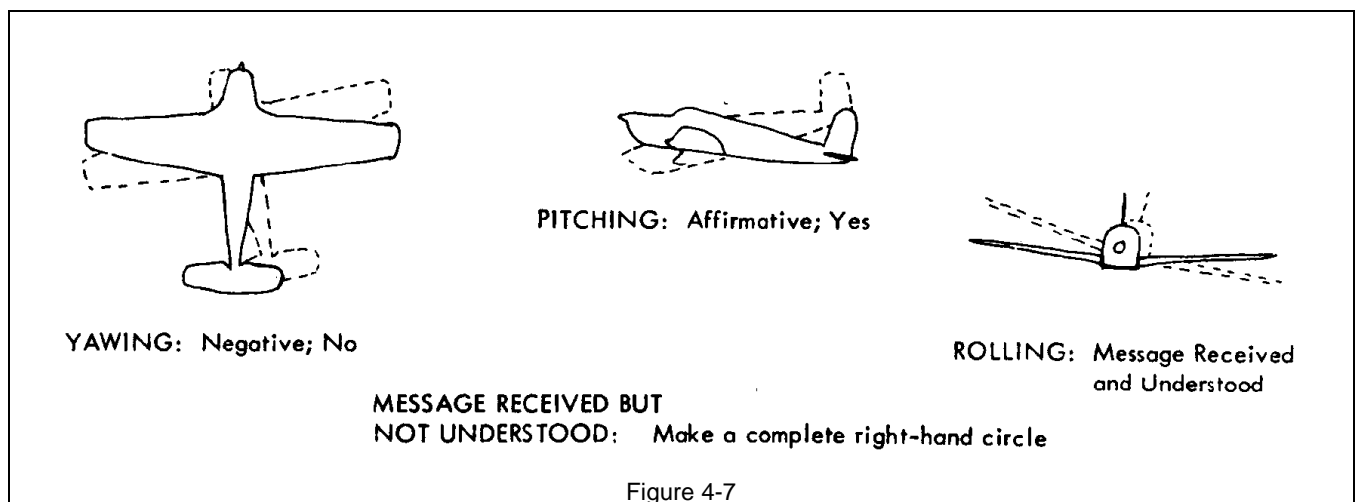
4.2.5 Air-to-ground signals

Communicating by radio is the basic air-to-ground communication method. If this isn't possible, the pilot has a limited number of signals that can be given using the aircraft itself, as illustrated in Figure 4-7. These signals serve as a standard means to acknowledge receiving and understanding signals from the ground. An "affirmative, I understand" response to a survivor's signal can often be a morale booster, and renew hope for imminent rescue.

In addition to the four signals shown in Figure 4-7, there are two more that aircrews use to communicate with ground rescue teams. First, if the crew believes a ground team should investigate an area, the pilot may fly over the team, “race” the engine or engines, and then fly in the direction the team should go. The pilot may repeat this maneuver until the ground team responds or until another means of communication is established.

Second, you may pinpoint an area for investigation by circling above the area, continuing to do so until the ground team reaches the area and begins the search. The better the communication from ground-to-air and air-to-ground, the more coordinated the search will be and the greater the chances for success.

4.3 In-flight services



Whether you are participating in a training exercise or an actual SAR mission, the aircraft radio is an invaluable piece of equipment. Therefore, an understanding of the basic types of services that are provided through the radio is essential for mission observers.

You may call any FAA station along your route for any in-flight information or assistance, such as weather reports, special national weather service advice to aid in establishing your position, or locating an airport. It is not necessary to be completely familiar with all the standard terminology and procedures for air/ground communications. A brief call to any FAA station, stating your message in your own words, will get immediate attention. Personnel at FAA flight service stations are trained to help establish position by:

- Visual reference to terrain features.
- VHF omni-range indications (triangulation).
- Low-frequency radio range orientation.

4.3.1 Flight service stations

The FAA maintains a number of Flight Service Stations (FSS) that provide pre-flight and in-flight weather briefings, makes scheduled/unscheduled weather broadcasts, and gives weather advisories. Assistance may include providing Notices to Airmen (NOTAMs), weather forecasts, hazardous weather advisories, terminal weather observations, pilot reports, and other weather-related information.

Once airborne you can update weather information by contacting the Enroute Flight Advisory Service (Flight Watch) on 122.0, using the name of the air route traffic control center in whose airspace you are operating (e.g., Atlanta Flight Watch). Flight Watch provides time-critical assistance to enroute pilots facing hazardous or unknown weather, and may recommend alternate routes. Flight Watch also disseminates (and accepts) PIREPs. Other flight service frequencies are indicated on the sectional charts.

Flight service station personnel are also familiar with the general operating areas surrounding their respective facilities, and can be helpful in determining a pilot's position, should he become lost or disoriented. FSS personnel are also trained to help lost pilots establish their positions by VOR triangulation, and direction finding. These "lost pilot" services are intended to be used by pilots or crews who are genuinely lost, not those who are momentarily uncertain of their positions.

4.3.2 Transcribed Weather Broadcasts (TWEBs)

Selected FSSs have equipment that allows for meteorological and NOTAMS to be recorded on tapes and then broadcast continuously over selected NDBs and VORs. Broadcasts are made from a series of tape recordings and are updated as changes occur. The information varies from one station to the next, but usually includes at least the following:

- Synopsis and flight precautions.
- Route forecasts and outlook.
- Radar and Surface Weather Reports (area reports).
- Pilot reports.
- NOTAMs.
- Winds aloft data.

Notice that TWEBs are route-oriented and give area weather forecasts. In most cases, you must listen to TWEBs on the VOR or ADF receiver, using the same audio feature that was used previously to identify the station. The frequency of the transmission dictates which radio you have to use.

4.3.3 Scheduled Weather Broadcasts

All flight service stations having voice facilities on radio ranges (VOR) or radio beacons (NDB) that broadcast weather reports and Notice to Airmen information at 15 minutes past each hour from reporting points within approximately 150 miles of the broadcast station.

At each station, the material is scheduled for broadcast as available in this order:

- Alert notice announcement.
- Hourly weather reports.

- Weather advisory.
- Pilot reports.
- Radar reports.
- Notice to Airmen (NOTAMs, AIRADS-AIRMEN ADVISORIES).
- Alert notice.

Special weather reports and some notices to airmen data are broadcast off-schedule, immediately upon receipt. If you need special forecast services en route, you may obtain it from any flight service station. The time of observation of weather reports included in scheduled broadcasts is understood to be 58 minutes past the hour preceding the broadcast. When the time of observation is otherwise, the observation time is given.

Scheduled weather broadcasts (15 minutes past each hour) begin with the announcement "Aviation broadcast, weather." For example:

"AVIATION BROADCAST, WEATHER, OKLAHOMA CITY. OKLAHOMA CITY WILEY POST MEASURED CEILING ONE THOUSAND BROKEN, VISIBILITY TWO, FOG. TEMPERATURE FOUR THREE, DEW POINT FOUR ONE, WIND ONE NINER ZERO DEGREES AT FOUR. ALTIMETER TWO NINER EIGHT SEVEN." The completed broadcast is ended by saying, "THE TIME IS ONE EIGHT AND ONE QUARTER."

Reports for approximately 10 additional stations may follow. The local report is repeated as the last station report. Temperature is not broadcast, for other than the local report, when it is 40 degrees or less, or 85 degrees or higher.

When the temperature/dew point spread is 5 degrees or less, both the temperature and dew point are given. Surface wind direction and speed is given when it is 10 knots or more sustained. For this station, wind directions are magnetic, that is, measured from magnetic north rather than true north. The altimeter setting is given for the broadcast stations local report only. Special weather reports and advisories are broadcast when warranted by significant changes in the weather at a particular station or in a given area.

4.3.4 Automatic Terminal Information Service (ATIS)

At many airports, the FAA dedicates one or more transmitters and frequencies to continuous taped broadcasts of weather observations, special instructions, and NOTAMs that relate to the airport or nearby navigational facilities. ATIS tapes are intended to relieve air traffic controllers of repetitively transmitting the same data to every arriving and departing aircraft. Broadcast weather information is about actual observations for the smaller, terminal area -- not forecasts.

ATIS information is updated hourly, but may be updated sooner if the weather, special instructions or NOTAMs change significantly. Usually, you must listen to ATIS recordings on the communication radio. The frequency for the ATIS transmission is found on the sectional chart near the airport's name, or in a table on the reverse side of the sectional title panel. A typical ATIS transmission may sound like this:

"Atlanta Hartsfield Airport, arrival information 'November'. 2350 Zulu weather measured ceiling 800 overcast 1 1/2 miles in fog and haze. Temperature 16 degrees, dew point 15 degrees, wind calm, altimeter 29.80. ILS approaches in progress to Runways 8 left and 9 right. Landing runways 8 left and 9 right. Atlanta VOR out of service. Taxiway Mike closed between taxiways Delta and Sierra. Read back all 'hold short' instructions. Advise controller on initial contact you have information 'November'."

Even though you may not intend to stop at Hartsfield, this transmission contains bits of information that may have a significant bearing on your flight. The last weather observation, the wind, and the fact that the VOR is out of service could be very important to you. If you had any intention of using the Atlanta VOR for navigation assistance on your mission, you now know to make a different plan.

If you are conducting a search under visual flight rules that will take you in the vicinity of Hartsfield, you know to consider a new plan because the reported weather will not allow VFR flight. When cloud bases are more than 5,000 feet above the terrain and visibility is better than five miles, those portions of the weather observation may often be deleted from the broadcast.

4.3.5 In Flight Weather Broadcasts

When Flight Service receives severe weather forecast alerts from the National Weather Service, specialists transmit the alerts immediately and then again at each hour, half-hour, and quarter-hour for the first hour after the alert was first issued. The air traffic control centers also transmit the alert, but only once. Subsequent broadcasts may advise pilots to contact Flight Service to receive the alert text.

4.3.6 Hazardous In-Flight Weather Advisory Service (HIWAS)

You can also receive advisories of hazardous weather on the audio of many enroute nav aids including VORs and NDBs. As the HIWAS name implies, this information relates only to hazardous weather, such as tornadoes, thunderstorms, or high winds. If no hazardous weather is reported, the crewmember will only hear the facility's identifier. Nav aids having HIWAS broadcast capability are annotated on the sectional chart.

When receiving a hazardous weather report, ATC or FSS facilities initiate the taped HIWAS transmissions, and ATC then directs all aircraft to monitor HIWAS.

4.3.7 Automated Weather Observation System (AWOS)

At many airports, the FAA has installed Automated Weather Observation Systems. Each system consists of sensors, a computer-generated voice capability, and a transmitter. Information provided by AWOS varies depending upon the complexity of the sensors installed. Airports having AWOS are indicated on sectional charts by the letters AWOS adjacent to the airport name, and the level of information is indicated by a single digit suffix, as shown in Figure 4-8.

AWOS-A	Altimeter setting only
AWOS-1	Altimeter, surface wind, temperature, dew point, density altitude
AWOS2	Altimeter, surface wind, temperature, dew point, density altitude, visibility
AWOS-3	Altimeter, surface wind, temperature, dew point, density altitude, visibility, clouds/ceiling data

Figure 4-8

4.3.8 Pilot Weather Report (PIREP)

Pilot Reports (PIREPs) are often the only source of information about what's going on between weather stations. Since these reports are voluntary they may not be available for your

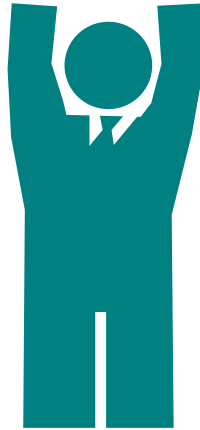
flight, but always ask for them. CAP aircrews should submit PIREPs to Flight Watch whenever possible.

When submitting a PIREP you should state your location, the time, altitude, and aircraft type. Then give conditions such as sky cover, flight visibility, weather (e.g., cloud bases and tops, upper cloud layers, thunderstorms, ice, turbulence, or strong winds), temperature, wind, turbulence, icing and other significant flight information.

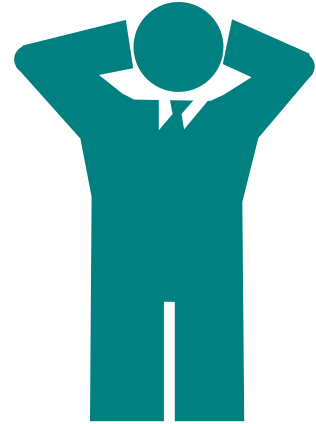
Federal Aviation Administration stations are required to solicit and collect pilot reports whenever ceilings are at or below 5,000 feet above the terrain, visibility is at or less than 5 miles, or thunderstorms, icing, wind shear, or turbulence is either reported or forecast. PIREPs are included at the beginning of scheduled weather broadcasts by FAA stations within 150 nautical miles of the area affected by potentially hazardous weather. These reports can help you avoid bad weather and warn you to be ready for potential hazards.



Wave Both arms across face
**DO NOT ATTEMPT TO
LAND**



Both arms held
over head
**PICK UP -
PLANE IS
ABANDONED**



Cup hands over ears
**OUR RECEIVER IS
WORKING**



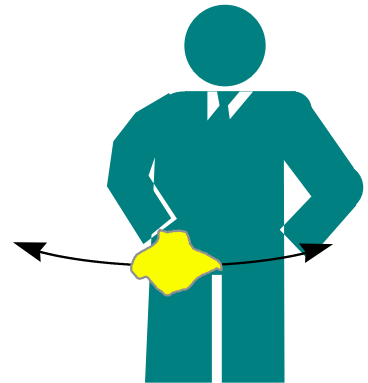
Lie flat on back with hands above head
NEED MEDICAL ASSISTANCE



Both arms horizontal
**NEED MECHANIC HELP or
PARTS - LONG DELAY**



Wave one arm over
head
**ALL OK - DO NOT
WAIT**



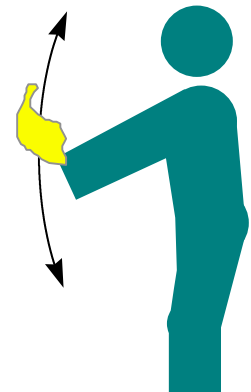
Wave cloth horizontally
NEGATIVE - NO



One arm horizontal
CAN PROCEED SHORTLY
WAIT IF PRACTICAL



Both arms pointing in the
direction of landing while
squatting
LAND IN THIS DIRECTION



Wave cloth vertically
**AFFIRMATIVE -
YES**